REMARKS

Pursuant to 37 CFR §1.116, applicants respectfully request admission of the following remarks set forth below and reconsideration of the rejection of the claims in view of the remarks. Claims 1-20 remain in the application. Claims 1, 4, 5, 9, 12, 13, 16, 18, and 19 have been amended. Claims 2, 3, 5-8, 10-11, 14-15, 17, and 20 remain unchanged.

35 U.S.C. §103

Claims 1-3, 6, 16, 17, 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sourour et al (US 6421371; hereafter "Sourour"). Applicants respectfully traverse this rejection.

Amended claim 1 recites, inter alia, "An apparatus for performing a pilot synchronization . . . comprising . . . a plurality of sliding correlators that each receives a portion of a received correlation sequence and provides a partial correlation output . . . a plurality of absolute value blocks that take a respective absolute value of each partial correlation output . . . and circuitry that combines the absolute values of each of the absolute value outputs to form a correlation output . . . wherein a linear relation of the absolute values for each partial correlation output is used to perform pilot synchronization in the presence of a large frequency offset." Support for the amendment to claim 1 is found on page 5 lines 32-33 and page 6 lines 5-7. The applicants respectfully propose that Sourour fails to teach or suggest all of the elements of amended claim 1.

Sourour appears to teach an apparatus for performing a synchronization in a wireless communication system. The apparatus uses a series of sliding correlators on a partial correlation sequence. The apparatus further combines the magnitude squared values of the outputs of the correlators to determine whether the signal is properly synchronized. In contrast, claim 1 recites "a plurality of absolute value blocks that take a respective absolute value of each partial correlation output . . . and circuitry that combines the absolute values of each of the absolute value outputs to form a correlation output . . . wherein a linear relation of the absolute values for each partial correlation output is used to perform pilot synchronization in the presence of a large frequency offset." As stated, Sourour appears to focus on making a decision regarding synchronization, given the

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presence of an offset in the synchronization signal, using magnitude squared values from the correlators. Sourour does not appear to teach "a plurality of absolute value blocks that take a respective absolute value of each partial correlation output . . . wherein a linear relation of the absolute values for each partial correlation output is used to perform pilot synchronization in the presence of a large frequency offset." There is a distinct difference between using the absolute value and the magnitude squared value. The absolute values of each of the correlators in the present invention maintain a linear relationship. In contrast, Sourour appears to teach the use of magnitude squared values creating a nonlinear relation between the outputs of correlators. The nonlinear relation creates deference to certain values at the outputs of the correlators over other values. For instance, the nonlinear relation may provide undesirable deference to the errors found in the presence of higher frequency offsets. As a result, Sourour fails to teach or suggest all of the elements of claim 1. Therefore, it is respectfully proposed that the rejection for obviousness under 35 U.S.C. § 103(a) is overcome and notice to that effect is earnestly solicited.

Dependent claims 2-8 being dependent on and further limiting independent claim 1, should be allowable for that reason, as well as for the additional recitations that they contain. Therefore, it is respectfully proposed that the rejection of claims 2-8 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Amended independent claim 16 includes elements similar to the elements of independent claim 1 and should therefore be allowable for the same reasons discussed above as well as for the additional recitations contained therein. Therefore, it is respectfully proposed that the rejection of claim 16 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Dependent claims 17- 20, being dependent on and further limiting independent claim 16, should be allowable for that reason, as well as for the additional recitations that they contain. Therefore, it is respectfully proposed that the rejection of claims 17 - 20 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Claims 9-11, 14, and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schelm et al (US Pub No. 2003/0235238; hereafter "Schelm") in view of Sourour. Applicants respectfully traverse this rejection.

Amended claim 9 recites, inter alia, " A code division multiple access ("CDMA") receiver, comprising . . . an analog-to-digital converter . . . a matched filter . . . a tapped delay line . . . and a cell search block, comprising . . .a plurality of sliding correlators that each receives at least a portion of the delayed filtered digital signal and provides a partial correlation output . . . an absolute value block that takes the absolute value of each partial correlation output . . . and circuitry that combines the absolute values of each of the absolute value block to form a correlation output . . . wherein a linear relation of the absolute values for each partial correlation output is used to determine synchronization channel timing in the presence of a large frequency offset." The applicants respectfully propose that Schelm, Sourour, or the combination of the two do not teach or suggest all of the elements of amended claim 9.

As noted earlier for claim 1, Sourour appears to fail to teach or suggest "an absolute value block that takes the absolute value of each partial correlation output . . . wherein a linear relation of the absolute values for each partial correlation output is used to determine synchronization channel timing in the presence of a large frequency offset." Schelm appears unable to remedy this deficiency in Sourour. In particular, Schelm appears to teach a receiver comprising an analog to digital converter, a matched filter, a tapped delay line, and a cell search block. However, Schelm does not appear to teach "an absolute value block that takes the absolute value of each partial correlation output . . . wherein a linear relation of the absolute values for each partial correlation output is used to determine synchronization channel timing in the presence of a large frequency offset." As a result, Schelm fails to remedy the deficiency of Sourour. Accordingly the combination of Schelm and Sourour does not teach or suggest all of the elements of claim 9. Therefore, it is respectfully proposed that the rejection under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Dependent claims 10-15, being dependent on and further limiting independent claim 9, should be allowable for that reason, as well as for the
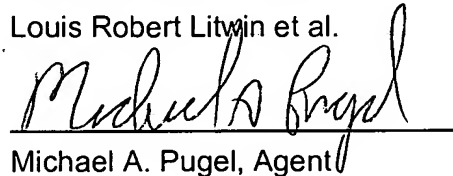
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additional recitations that they contain. Therefore, it is respectfully proposed that the rejection of claims 10-15 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Conclusion

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicants' agent at (317) 587-4027, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due in regard to the present amendment. However, if a fee is due, please charge the fee to Deposit Account 07-0832.

Respectfully submitted,
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Date: September 27, 2006

CERTIFICATE OF MAILING

I hereby certify that this amendment is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Sept 27, 2006
date

Michael A. Pugel